Attorney Docket No.: 2004P00446WOUS

## **IN THE CLAIMS**

Please amend the claims as follows:

1. (Currently Amended) A method for generating training data for an automatic speech recognizer operating at a first sampling frequency, comprising the following steps:

deriving spectral characteristics from audio data sampled at a second frequency lower than the first sampling frequency;

extending a bandwidth of the spectral characteristics by retrieving bandwidth extending information from a codebook so that the audio data sampled at the second frequency is compatible with the automatic speech recognizer operating at the first sampling frequency; and

processing the bandwidth extended spectral characteristics to give the required training data.

wherein extending the bandwidth includes augmenting the spectral characteristics of the audio data sampled at the second frequency with a set of spectral characteristics of audio data sampled at the first sampling frequency obtained from the codebook.

- 2. (Previously Presented) A method according to claim 1, where the conversion of audio data into sets of spectral characteristics comprises calculating the FFT of the audio data to give a set of Fourier coefficients and filtering the output of the FFT with a filterbank to give a set of filterbank power values.
- 3. (Previously Presented) A method according to claim 2, where the conversion of audio data into sets of spectral characteristics comprises processing the FFT coefficients or the filterbank power values to give a set of log-spectral coefficients.
- 4. (Previously Presented) A method according to claim 1, where the processing of bandwidth extended spectral characteristics comprises a step of altering the spectrum to adjust signal properties of the audio data.

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5. (Previously Presented) A method according to claim 4, where the step of altering the spectrum to adjust the signal properties of the audio data is performed in the linear domain.

6. (Previously Presented) A method according to claim 1, where the derivation of the spectral characteristics from audio data is followed by a step subtracting the mean spectrum from the spectral characteristics.

7. (Currently Amended) A method for training an automatic speech recognition system wherein the data used for training are at least partially generated using a method according to [[to]] claim 1.

## 8 - 13. (Cancelled)

- 14. (Currently Amended) A system for generating training data for an automatic speech processor operating at a first sampling frequency, comprising:
- a <u>hardware</u> converter for deriving spectral characteristics from audio data sampled at a second frequency lower than the first sampling frequency;
- a <u>hardware</u> retrieval unit for retrieving bandwidth extending information for the spectral characteristics from a codebook so that the audio data sampled at the second frequency is compatible with the automatic speech <u>processor recognizer</u> operating at the first sampling frequency;
- a <u>hardware</u> processing module for processing the bandwidth-extended spectral characteristics to give the required training data.

wherein the codebook contains a set of spectral characteristics of audio data sampled at the first sampling frequency, and

wherein the hardware retrieval unit augments the spectral characteristics of the audio data sampled at the second frequency with the set of spectral characteristics of audio data sampled at the first sampling frequency.

## 15. (Cancelled)